

Mumbai University

Question Paper

**[CBSGS – 75:25 PATTERN]
(APRIL – 2016)**

PAPER - I

**INTERNET
TECHNOLOGIES**

Time: 2 ½ Hours**Total Marks:** 75**N.B.:** (1) All Question are Compulsory.

(2) Make Suitable Assumptions Wherever Necessary And State The Assumptions Made.

(3) Answer To The Same Question Must Be Written Together.

(4) Number To The Right Indicates Marks.

(5) Draw Neat Labeled Diagrams Wherever Necessary.

(6) Use of Non – Programmable Calculator is allowed.

Q.1 ATTEMPT ANY TWO QUESTIONS: (10 MARKS)

- (A) Why do you need Subnetting in Classfull Addressing? Explain. (5)
- (B) Why do you need to Fragment an IP Datagram? Explain the Fields related to it. (5)
- (C) Explain the concept of IP over ATM. (5)
- (D) Explain the Extension Headers in IPv6. (5)

Q.2 ATTEMPT ANY TWO QUESTIONS: (10 MARKS)

- (A) Explain packet format of ATMARP. (5)
- (B) List the Error Reporting Message of ICMP. Explain any one of them with the Format. (5)
- (C) What is an Insufficiency in Mobile IP? Explain with a solution. (5)
- (D) How Bellman-Ford Algorithm help to find the least cost between two Nodes? Explain. (5)

Q.3 ATTEMPT ANY TWO QUESTIONS: (10 MARKS)

- (A) Explain the details of UDP Packages. (5)
- (B) What is need of Queues in UDP? Explain. (5)
- (C) Explain NUMBERING system use in TCP. (5)
- (D) Explain Half-Close of TCP. (5)

Q.4 ATTEMPT ANY TWO QUESTIONS: (10 MARKS)

- (A) Explain format of DATA Chunk and INIT Chunk. (5)
- (B) How do you establish an association in SCTP? Explain. (5)
- (C) Draw and explain DHCP Packet Format. (5)
- (D) Explain types of Records in DNS. (5)

Q.5 ATTEMPT ANY TWO QUESTIONS: (10 MARKS)

- (A) Write a note on NVT. (5)
- (B) Explain in details component of SSH. (5)
- (C) Which are two approaches that FTP Client and Server uses to communicate with each other? (5)
- (D) Explain Persistence and Non-Persistence Connection in HTTP. (5)

Q.6 ATTEMPT ANY TWO QUESTIONS: (10 MARKS)

- (A) Explain the Phases of Email Transfer. (5)
- (B) What are the roles of Message Access Agent? How does POP3 works? (5)
- (C) What are the concepts of MIME? Explain its Format. (5)
- (D) How do you Compress an Audio? Explain. (5)

[TURN OVER]

Q.7 ATTEMPT ANY THREE QUESTIONS: (15 MARKS)

- (A) Compare IPv4 and IPv6. (5)
 - (B) What are types of Links in OSPF? Explain each in details. (5)
 - (C) What are options available in TCP? Explain each with its Packet Format. (5)
 - (D) Draw and explain DHCP client state Transition Diagram. (5)
 - (E) Describe Architectures of WWW. (5)
 - (F) How do you Download Compressed Audio/Video using a Web Server and Media Server? Explain. (5)
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